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ABSTRACT

About 30,000 students in Grades 1 through 12 in Jackson, Mississippi, were studied to determine the effectiveness of instruction for all major social groups represented by the student population during the 1986-87 school year. The California Achievement Test and course grades were used to obtain core data. Demographic data were obtained for students. Focus was on illustrating the development of the district's evaluation processes and refining the district's process for identifying at-risk students. Multiple-variable and interaction analysis models were used to analyze the data. Results indicate that: (1) the models used are simple but powerful tools for evaluating school effectiveness; (2) considerable progress has been made by the district in the delivery of services to students from both upper and lower social classes; (3) a discrepancy remains in minimum mastery across some groups of students; (4) identification of at-risk students has been made more efficient; and (5) the education of poor children is politically and economically complex. Twelve tables and nine charts/graphs are appended. (TJH)

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JACKSON PUBLIC SCHOOLS

Jackson, Mississippi

Dr. Robert N. Fortenberry, Superintendent

EVALUATING SCHOOL EFFECTIVENESS IN AN URBAN SCHOOL DISTRICT: PROMISES, PROBLEMS, AND NEW DIRECTIONS

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TABLE OF CONTENTS

Page

INTRODUCTION..... 1

BACKGROUND--HISTORY..... 1

PURPOSE OF THE STUDY..... 2

SIGNIFICANCE..... 2

DEFINITION OF TERMS..... 3

PRESENTATION OF DATA
- Introduction..... 4
- Model One: Getting Started..... 5
- Model Two: Multiple Variables..... 5
- Model Three: Interactions..... 6

FINDINGS and DISCUSSION..... 7

Tables (Disaggregated Performance Data)
- I. Basic CAT, 1983-1985..... 8
- II. Multiple Variable CAT, 1985..... 9
- III-VI. Interactive CAT, 1987..... 11
- VII-XII. Interactive Course Grades, 1987..... 15

Charts
- A. Demographics for Grades 4, 6, and 8..... 21
- B. CAT Disaggregated by Social Class, 1983-1985.... 24
- C. CAT Disaggregated by Social Class, Gender, and Race, 1985..... 27

References..... 30

Introduction

American public education historically records many "movements" that promised to reform and improve schooling. Some movements lived up to their promises; others had no effect on learning or were actually detrimental. This paper is about "school effectiveness," a relatively recent movement whose philosophy posits that all pupils can master essential learning objectives whether from upper, middle, or lower social class. School effectiveness proponents make no claim that pupils from all social groups should perform equally well on all dimensions of the learning continuum; rather, the keystone belief is that essential objectives can be taught in a manner so that pupils will achieve **minimum mastery** regardless of family background. Ron Edmonds identifies schools where such learning is taking place as "effective schools." He also identifies specific organizational and instructional characteristics of these schools which he calls "correlates" of effective schools (Edmonds,1979).

These correlates have become a guiding force for the Jackson Public School District. Annual and long-term planning for each school and for the district is related to the correlates. Budget items are justified and instructional programs are implemented as supporting one or more of the correlates. The entire operation of the school district is carried out under the influence of the school effectiveness movement (Allen,1988).

Background

Demographic trends in American society provide a sobering background for the school effectiveness movement. American families have undergone drastic changes in structure in recent years. There are more working mothers with pre-school and school age children than ever before. The typical household of a working father and housewife mother simply no longer exists. Single parent families are commonplace due to divorce and never-married mothers. The need for child care is extensive--but often not available or not affordable. Many pupils are growing up in poverty--with the attendant ills of inadequate diet, poor medical care, and experiential deprivation. Increasing numbers of pupils are entering school with specific learning disabilities or serious learning difficulties (Hodgkinson,1986).

The school effectiveness movement claims to counteract some of these problems by focusing on "school effects" rather than "familial effects." Since educators have no direct control over the homes from which pupils come, schools must be organized and instruction must be delivered so that all pupils can achieve minimum mastery of essential objectives. Schools must be structured not only for gifted pupils but also for those who will need additional time and motivation in order to succeed. The school effectiveness philosophy

indicates a change in educational attitude from schools where only a few pupils would attend and learn to schools where all pupils can attend and learn, given time and assistance (Robinson,1986).

Purpose of the Study

The focal question of this study is whether or not the school district is effectively delivering instruction to pupils from all major social groups. In terms of school effectiveness philosophy the study will ask if equal percentages of pupils from all social groups are mastering essential objectives. The study will also ask if excellence is being maintained during the drive for equity.

A secondary purpose of this study is to illustrate the development of the district's evaluation processes. The most recent evaluation model will receive primary attention, but attention will be given to the strengths, weaknesses and concerns at each developmental stage of the evaluation process.

A final purpose of this study is to refine the district's process of identifying at-risk pupils who are to receive the limited resources available for intervention.

Significance

This study is based on the premise that a primary goal of education is to construct and deliver instruction so that it does not discriminate against any social group (Grant and Sleeter,1987). At first, the district analyzed data based on social class only with the belief that pupils from all social classes could master essential objectives as measured by standardized tests. Eventually, the attributes of race, gender, and number of parents in the household were used as bases for disaggregation and evaluation of standardized test results. The most recent emphasis utilizes both standardized test results and course grades (criterion tests) and delineates the independent and interactive relationship of race, gender, and social class to pupil performance.

The most recent evaluation effort of the district is congruent with Grant and Sleeter's suggestion for research in this area. They applaud the attention given to race, social class, and gender during the last two decades, but they also reveal that most of the studies deal with these attributes as separate issues rather than an integrated issue. "We therefore argue that more attention needs to be paid to the integration of race, class and gender" (Grant and Sleeter, 1986). This study illustrates an integrated approach to social class, race, and gender. Analysis of the simple and interactive effects of these variables on pupil achievement makes possible the precise identification of "at-risk" pupils who will likely need extra help in order to succeed.

The various components of this longitudinal evaluation effort were spawned out of a district concern for both equity and excellence in education. The effective schools movement grew out of an attempt to improve instruction for poor, urban, minority pupils. But while Ron Edmonds's first concern was equity, he was quick to point out his concern for excellence. He contended that equity was inextricably tied to the issue of excellence. In private conversation he stated (paraphrased by the authors), "Without equity there can be no excellence." The evaluation models described in this paper provide a powerful and uncomplicated process for assessing both equity and excellence in schooling.

Definition of Terms

These definitions will aid understanding of the material that follows. Abbreviations are provided and will be used where brevity is appropriate.

1. **Population.**--The population for this study was approximately 30,000 pupils in grades 1-12 in 37 elementary schools, 10 junior high schools, and 7 senior high schools. (This did not include about 2,500 pupils in kindergarten.) All pupils were included in the course grade data. Pupils in grades 4, 6, 7, and 8 were included in the Standardized Achievement Test data.

Table II and Charts A-C provide important descriptive information about the population: (1) About fifty percent are from one-parent homes; (2) About sixty-five percent are lower SES families; (3) Lower SES, one-parent households make up about forty-five percent of the population, but higher SES one-parent families make up a rather small proportion of the population; (4) The decrease in the percentage of low SES pupils in grade eight can probably be attributed to the fact that the majority of dropouts in this division are lower SES.

2. **Time.**--The primary analysis was for the 1986-87 school year. Previous studies for 1983-1985 and 1986 are referenced here for completeness.

3. **Standardized Test Results.**--The California Achievement Test (CAT), 1977 Edition was used 1983-1985 and is reported in Models I and II. The 1985 edition was used in Model III for 1987 data.

5. **Course Grades.**--A course grade is the annual grade for a pupil and is calculated from a weighted average of two semester grades and a final exam. Seventy percent of a grade is determined from scores on standardized locally developed criterion tests. The remaining portion of a grade is determined by teachers but is based on homework completed, reports, etc. Grades were grouped by reading and mathematics. Each pupil is represented in the analysis by one grade for each subject, although the subject analysis contains grades for several courses. Reading and Mathematics course grades are divided by division, elementary (grades 1-6), junior high (grades 7-9) and senior high (10-12).

6. Minimum Mastery of Essential Objectives.--Minimum mastery on the CAT was measured by achievement above the 30th percentile but pupil performance is also given for percentile scores of 31-70 and 71-99. For course grades, minimum mastery is considered a passing grade of 70 or higher. Pupils are identified as failing, passing, or mastering. These levels are strictly arbitrary and could be changed within reasonable bounds.

7. Social Class (SES: U=Upper and L=Lower).--Social class was defined by a method advocated by Ron Edmonds which assigns free and reduced meals recipients to lower SES and paying pupils to middle/upper SES. (The limitations of this technique is fully recognized, but this was the best method available for the population involved.)

8. Race.--Minority and non-minority are used as national designations rather than a description of district percentages. District percentages are 77 percent minority and 23 percent non-minority. Minority pupils other than blacks equal about one percent of the total enrollment.

9. Number of Parents in the Household (NPH).--Pupils living with both natural parents, one natural parent and a stepparent, one natural parent and an adoptive parent, and with two adoptive parents were considered from two-parent homes. Those with one parent and those who have been placed with a family by court order are considered from one parent households. (NPH was not used in the most recent evaluation model because of so much overlap between NPH and SES.)

10. Disaggregation.--Pupil performance measures were "disaggregated" or separated into each of the groups being considered. For standardized tests, the number and percentage of pupils were determined who scored within each percentile range of 1-30, 31-70, and 71-99. (This is in contrast to the usual quartile distribution.) Course grades were disaggregated in the same manner except grades were divided into three groups, failing (below 70), passing (above 70), and mastering (above 74). These distributions of scores or grades are presented for the single variables of gender, social class, race, or number of parents in the household. Distributions of scores are also illustrated in the most recent model for (a) two-variable combinations such as minority male, or higher SES female, etc., or for (b) three-variable combinations such as higher SES minority females, or lower SES non-minority males, etc.

Presentation of Data

The information following is organized by the sequential development of the district's evaluation processes. Three distinct models are presented but the reader should understand that the evaluation process has undergone constant change. The three models have a considerable amount of overlap because components were modified whenever new techniques or embellishments were appropriate. The first two

models have been presented previously and are included here only for completeness (Fortenberry, et al,1987). The most significant findings of this study obviously come from the last and most advanced model.

Model One: Getting started.--Table II and Charts D-F illustrate standardized norm-referenced data for the district for grades four, six, and eight for the years 1983-1985. The percentage of pupils making percentile scores on the CAT are first disaggregated into higher and lower SES groups. Within each of these groups the number and percent of pupils are tabulated for three groups with score ranges of 1-30 (low), 31-70 (middle), or 71-99 (high). (Remember, these ranges and their labels are arbitrary choices. It is also an arbitrary choice that scores of 1-30 are considered "minimum mastery," but other district evaluation indicates a very strong agreement between course failure and CAT scores in the 1-30 range (Allen and Tadlock,1988).)

During the three years, the percentage of low scoring pupils decreased in both SES groups. The largest decrease is indicated for the low SES group, especially in grades four and six. The middle range of scores (31-70) indicates a moderate decrease for the high SES group and a slight increase for the low SES group. The last year (1985) reveals a remaining discrepancy between SES groups for pupils in the minimum mastery category (1-30), but this discrepancy was narrowed considerably during the three years. Generally, improved scores for low SES pupils were accompanied by improved scores for the higher SES pupils.

Model Two: Including Multiple Variables.--This model is based on the use of CAT (1977 edition) scores as the criterion measure and expands the number of groups to include social class, gender, and number of parents in the household (NPH). This model also differs in that it is for one year only as compared with the three years in the first model. The process was actually carried out for 1985 and 1986, but results are almost identical for both years; therefore, the analysis presented here is only for one year. Table II provides the number and percent of pupils in grades four, six, and eight for 1985 for both SES groups, males and females, and number of parents in the household.

Table II also provides CAT scores disaggregated for eight unique groups composed of all possible combinations of gender, social class, and race. Indicated is the number and percentage of students who scored within each of the percentile ranges of 1-30, 31-70, and 71-99. Charts G-I illustrate the disaggregation for each of these groups by these percentile ranges. The sequence of groups on the bar charts have been arranged to provide the best general linear fit of scores from the poorest on the left to the best on the right rather than a strict ranking by minimum mastery. This arrangement is arbitrary but seems to be justified.

There are some notable exceptions to the following but these statements are generally appropriate: (1) Females scored better than males, two parent children scored better

than one-parent children, and upper SES children scored better than lower SES children. (2) The highest scores are by upper SES females from a two-parent household. The lowest scores are from lower SES males from a one parent household. (3) Achievement was not affected substantially by the number of parents in the household for upper SES pupils, but two-parent household lower SES pupils perform better than one-parent household lower SES pupils. (Subsequent analysis confirmed the initial conclusion of a great deal of agreement between SES and NPH. In a word--if you are from a one-parent household, you are poor!)

Model Three: Interaction Analysis.--This model uses the processes developed prior and adds new components: (1) The independent and interactive relationships among variables were examined; (2) analysis was extended to include course grades as well as standardized test results; and (3) the number of parents in the household (NPH) was not included and race (not included before) was included. Scores are for the 1985 edition rather than the 1977 edition of CAT that was used in Models I and II above. (The newer norms yield lower scores in general.)

CAT total battery percentile scores are shown in Tables III-VI. As in previous models, the scores are distributed in ranges of 1-30, 31-70, and 71-99 for each group and in all combinations of two and three variables. Course grade results were disaggregated similarly except grades were divided into three groups, failing (below 70), passing (above 70), and mastering (above 74). Tables VII-XII provide this information. Again, minimum mastery is arbitrarily set at CAT percentile scores above 30 and course grades of 70 or above.

Within each comparison (each Table), groups are ranked by the percentage achieving minimum mastery. This process yields a list of groups ranked from the lowest to the highest percentage of pupils achieving minimum mastery. (1) When the independent effects of each group is considered, the groups with the lowest percentage of minimum mastery are female, non-minority, and higher SES. (2) When SES and race are considered together, upper SES pupils have the best achievement regardless of race. When SES and gender are considered together, in most cases, upper SES pupils have the best achievement regardless of gender--but there are some exceptions. When race and gender are considered together, non-minority students achieve better regardless of race. (3) When all three variables are combined to make eight unique groups upper SES non-minority females achieve best and lower SES non-minority males are the poorest achievers. Between these two extremes (with some exceptions) the attributes of the better achieving pupils are upper SES, non-minority, and female. The worst achieving pupils are low SES minority males. Minority females--both SES groups--tend toward the better achieving groups.

Findings--Discussion

1. The models demonstrated here are **very simple--but very powerful tools for evaluating school effectiveness!** In the face of parental and legislative demands for both equity and excellence, these processes demonstrate considerable strength. Model I is limited by the use of a single variable, but it is very powerful when applied over a period of years. Model II is illustrated here for only one year but includes analysis for multiple groups. Model III delineates the independent and interactive relationships between all groups and provides a means to identify "at-risk" pupils. All models are limited by annual "snapshot" evaluation rather than by cohort analysis; but this is impractical due to a high mobility rate. The consistency of findings across years and across different measurement criteria also strengthens findings despite the acknowledged limitations.

2. This study illustrates considerable progress by the district in successful delivery of services to pupils from both upper and lower social classes. The decrease in the percentage of low-achieveing pupils from both social classes and the narrowing of the discrepancy between social classes is a source of immense pride for the district!

3. The remaining discrepancy in minimum mastery between some groups of students is a continuing source of concern. This process illustrates that within the large groups that seem to be doing well there are subgroups that are not doing so well. Meeting the special needs of these groups is an ongoing topic for curriculum planning.

4. The information from this study has helped the district to refine the process of identifying "at-risk" pupils. The findings of this study--along with other district evaluation--makes possible the most efficient allocation of limited resources for intervention and remediation.

5. This study suggests that we not only need to know "what works," but we also need to know "**what works FOR WHOM.**" The pupils that are not achieving minimum mastery have been thoroughly identified. Now we need to know what will work for these specific groups of pupils. The need for additional study is very compelling.

6. This study underscores the complex political and economic problems of children in poverty. The information confirms the strong relationship between NPH and SES and between RACE and SES. It is evident that educational institutions need help from multiple sources to mitigate the effects of poverty on pupil learning.

Table I

PUPIL ACHIEVEMENT DATA DISAGGREGATED BY SES AND
AVERAGE PERCENTILE SCORES
BY GRADE AND BY YEAR

					HIGH SES				LOW SES			
					PCT OF SCORES			TOTAL	PCT OF SCORES			TOTAL
SCHOOL	GRA	YR	TEST	TOT N	1-30	31-70	71-99	NUM-BER	1-30	31-70	71-39	NUM-BER
DISTRIC	04	83	CAT	1794	12.0	46.0	42.0	595	36.0	46.0	18.0	1199
DISTRIC	04	84	CAT	2236	9.0	42.0	49.0	779	21.0	55.0	24.0	1457
DISTRIC	04	85	CAT	2037	6.1	37.0	57.0	660	16.3	52.9	30.8	1377
DISTRIC	06	83	CAT	1583	11.0	48.0	41.0	592	34.0	52.0	14.0	991
DISTRIC	06	84	CAT	2162	8.0	39.0	53.0	806	24.0	51.0	25.0	1356
DISTRIC	06	85	CAT	2132	5.4	34.0	60.7	727	15.3	51.6	33.1	1405
DISTRIC	08	83	CAT	2269	15.0	51.0	34.0	739	34.0	48.0	18.0	1530
DISTRIC	08	84	CAT	2298	11.0	45.0	44.0	862	37.0	52.0	11.0	1436
DISTRIC	08	85	CAT	1962	8.0	49.1	42.8	820	26.7	59.0	14.3	1142

Table II

NUMBER AND PERCENT OF PUPILS
BY SES, GENDER, AND NUMBER OF PARENTS IN HOUSEHOLD

JACKSON PUBLIC SCHOOLS
1984-85

GROUP OR SUB-GROUP	GRADE 4		GRADE 6		GRADE 8	
	N	PCT	N	PCT	N	PCT
GRAND TOTAL	2053	---	2138	---	1968	---
U-UPPER SES	665	32.39	738	34.52	825	41.92
L-LOWER SES	1388	67.61	1400	65.48	1143	58.08
M-MALE	1004	48.90	1055	49.35	943	47.92
F-FEMALE	1049	51.10	1083	50.65	1025	52.08
1-ONE PARENT	998	48.61	1031	48.22	933	47.41
2-TWO PARENT	1055	51.39	1107	51.78	1035	52.59
LM1	419	20.41	426	19.93	350	17.78
LM2	256	12.47	251	11.74	210	10.67
LF1	470	22.89	464	21.70	376	19.11
LF2	243	11.84	259	12.11	207	10.52
UM1	58	2.83	74	3.46	96	4.88
UM2	271	13.20	304	14.22	287	14.58
UF1	51	2.48	67	3.14	111	5.64
UF2	285	13.88	293	13.70	331	16.82
UF1+UM1	109	5.31	141	6.59	207	10.52
LF1+LM1	889	43.30	890	41.63	726	36.89
LM2+LF2+UM2+UF2	1055	51.39	1107	51.78	1035	52.59

DISTRIBUTION OF CAT SCORES
FOR GRADES FOUR, SIX AND EIGHT
1984-1985
DISAGGREGATED BY SES, GENDER, AND NUMBER OF PARENTS

U,L = UPPER, LOWER SES M,F = MALE, FEMALE
1,2 = ONE- OR TWO-PARENT HOUSEHOLD

GROUP	GRADE		RANGE OF PERCENTILE SCORES 1-30	31-70	71-100	TOTAL
LF1	4	N=	65	270	135	470
		%=	13.83	57.45	28.72	
LF2	4	N=	15	116	112	243
		%=	6.17	47.74	46.09	
LM1	4	N=	100	224	95	419
		%=	23.87	53.46	22.67	
LM2	4	N=	46	126	84	256
		%=	17.97	49.22	32.81	
UF1	4	N=	5	13	33	51
		%=	9.80	25.49	64.71	
UF2	4	N=	10	100	175	285
		%=	3.51	35.09	61.40	
UM1	4	N=	4	23	31	58
		%=	6.90	39.66	53.45	
UM2	4	N=	22	110	139	271
		%=	8.12	40.59	51.29	

(CONTINUED OVER)

Table II (Continued)

DISTRIBUTION OF CAT SCORES
FOR GRADES FOUR, SIX AND EIGHT
1984-1985
DISAGGREGATED BY SES, GENDER, AND NUMBER OF PARENTS

U,L = UPPER, LOWER SES M,F = MALE, FEMALE
1,2 = ONE- OR TWO-PARENT HOUSEHOLD

GROUP	GRADE		RANGE OF PERCENTILE SCORES 1-30	31-70	71-100	TOTAL
LF1	6	N=	53	243	168	464
		%=	11.42	52.37	36.21	
LF2	6	N=	22	124	113	259
		%=	8.49	47.88	43.63	
LM1	6	N=	88	226	112	426
		%=	20.66	53.05	26.29	
LM2	6	N=	51	126	74	251
		%=	20.32	50.20	29.48	
UF1	6	N=	3	19	45	67
		%=	4.48	28.36	67.16	
UF2	6	N=	6	97	190	293
		%=	2.05	33.11	64.85	
UM1	6	N=	9	31	34	74
		%=	12.16	41.89	45.95	
UM2	6	N=	22	107	175	304
		%=	7.24	35.20	57.57	
LF1	8	N=	90	225	61	376
		%=	23.94	59.84	16.22	
LF2	8	N=	38	127	42	207
		%=	18.36	61.35	20.29	
LM1	8	N=	118	196	36	350
		%=	33.71	56.00	10.29	
LM2	8	N=	59	26	25	210
		%=	28.10	60.00	11.90	
UF1	8	N=	9	60	42	111
		%=	8.11	54.05	37.84	
UF2	8	N=	20	146	165	331
		%=	6.04	44.11	49.85	
UM1	8	N=	12	54	30	96
		%=	12.50	56.25	31.25	
UM2	8	N=	26	146	115	287
		%=	9.06	50.87	40.07	

Table III

07/14/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED DISTRIBUTION OF 4TH GRADE CAT PERCENTILE SCORES

SE STATUS	ETHNIC GROUP	GENDER	01-30	31-70	71-99	STUDENTS
LOWER SES			40.15	43.85	15.98	1758
UPPER SES			16.59	40.32	43.07	729
	MINORITY		38.37	42.69	18.93	1965
	NON-MINORITY		13.98	43.29	42.72	522
		MALE	40.07	40.39	19.53	1280
		FEMALE	26.01	45.40	28.58	1207
LOWER SES	MINORITY		41.48	42.90	15.61	1620
LOWER SES	NON-MINORITY		24.63	55.07	20.28	138
UPPER SES	MINORITY		23.76	41.73	34.49	345
UPPER SES	NON-MINORITY		10.15	39.06	50.78	384
LOWER SES		MALE	48.32	39.70	11.96	894
LOWER SES		FEMALE	31.71	48.14	20.13	864
UPPER SES		MALE	20.98	41.96	37.04	386
UPPER SES		FEMALE	11.66	38.48	49.85	343
	MINORITY	MALE	46.87	39.01	14.11	992
	MINORITY	FEMALE	29.70	46.45	23.84	973
	NON-MINORITY	MALE	16.66	45.13	38.19	288
	NON-MINORITY	FEMALE	10.68	41.02	48.29	234
LOWER SES	MINORITY	MALE	50.42	38.55	11.01	817
LOWER SES	MINORITY	FEMALE	32.37	47.32	20.29	803
UPPER SES	MINORITY	MALE	30.28	41.14	28.57	175
LOWER SES	NON-MINORITY	MALE	25.97	51.94	22.07	77
LOWER SES	NON-MINORITY	FEMALE	22.95	59.01	18.03	61
UPPER SES	MINORITY	FEMALE	17.05	42.35	40.58	170
UPPER SES	NON-MINORITY	MALE	13.27	42.65	44.07	211
UPPER SES	NON-MINORITY	FEMALE	6.35	34.68	58.95	173
*********	**********	******	33.25	42.82	23.92	2487

Table IV

07/14/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED DISTRIBUTION OF 6TH GRADE CAT PERCENTILE SCORES

SE STATUS	ETHNIC GROUP	GENDER	01-30	31-70	71-99	STUDENTS
LOWER SES			28.05	48.71	23.22	1326
UPPER SES			12.67	41.12	46.19	710
	MINORITY		26.42	47.79	25.77	1521
	NON-MINORITY		11.65	40.97	47.37	515
		MALE	28.46	44.31	27.21	959
		FEMALE	17.54	47.63	34.81	1077
LOWER SES	MINORITY		28.72	48.88	22.38	1215
LOWER SES	NON-MINORITY		20.72	46.84	32.43	111
UPPER SES	MINORITY		17.32	43.46	39.21	306
UPPER SES	NON-MINORITY		9.15	39.35	51.48	404
LOWER SES		MALE	35.29	47.05	17.64	629
LOWER SES		FEMALE	21.52	50.21	28.26	697
UPPER SES		MALE	15.45	39.09	45.45	330
UPPER SES		FEMALE	10.26	42.89	46.84	380
	MINORITY	MALE	33.71	46.28	20.00	700
	MINORITY	FEMALE	20.21	49.08	30.69	821
	NON-MINORITY	MALE	14.28	38.99	46.71	259
	NON-MINORITY	FEMALE	8.98	42.96	48.04	256
LOWER SES	MINORITY	MALE	36.61	46.47	16.90	568
LOWER SES	NON-MINORITY	MALE	22.95	52.45	24.59	61
LOWER SES	MINORITY	FEMALE	21.79	51.00	27.20	647
UPPER SES	MINORITY	MALE	21.21	45.45	33.33	132
LOWER SES	NON-MINORITY	FEMALE	18.00	40.00	42.00	50
UPPER SES	MINORITY	FEMALE	14.36	41.95	43.67	174
UPPER SES	NON-MINORITY	MALE	11.61	34.84	53.53	198
UPPER SES	NON-MINORITY	FEMALE	6.79	43.68	49.51	206
*********	**********	******	22.69	46.07	31.23	2036

Table V

07/14/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED DISTRIBUTION OF 7TH GRADE CAT PERCENTILE SCORES

SE STATUS	ETHNIC GROUP	GENDER	01-30	31-70	71-99	STUDENTS
LOWER SES			39.26	48.67	12.05	1286
UPPER SES			20.02	46.31	33.65	719
	MINORITY		37.47	47.73	14.78	1569
	NON-MINORITY		13.99	48.16	37.84	436
		MALE	39.23	42.96	17.79	1017
		FEMALE	25.30	52.83	21.86	988
LOWER SES	MINORITY		40.53	48.17	11.29	1204
UPPER SES	MINORITY		27.39	46.30	26.30	365
LOWER SES	NON-MINORITY		20.73	56.09	23.17	82
UPPER SES	NON-MINORITY		12.42	46.32	41.24	354
LOWER SES		MALE	46.94	43.19	9.85	639
LOWER SES		FEMALE	31.68	54.09	14.21	647
UPPER SES		MALE	26.19	42.59	31.21	378
UPPER SES		FEMALE	13.19	50.43	36.36	341
	MINORITY	MALE	45.82	42.23	11.93	779
	MINORITY	FEMALE	29.24	53.16	17.59	790
	NON-MINORITY	MALE	17.64	45.37	36.97	238
	NON-MINORITY	FEMALE	9.59	51.51	38.88	198
LOWER SES	MINORITY	MALE	48.98	42.56	8.44	592
UPPER SES	MINORITY	MALE	35.82	41.17	22.99	187
LOWER SES	MINORITY	FEMALE	32.35	53.59	14.05	612
LOWER SES	NON-MINORITY	MALE	21.27	51.06	27.65	47
LOWER SES	NON-MINORITY	FEMALE	20.00	62.85	17.14	35
UPPER SES	MINORITY	FEMALE	18.53	51.68	29.77	178
UPPER SES	NON-MINORITY	MALE	16.75	43.97	39.26	191
UPPER SES	NON-MINORITY	FEMALE	7.36	49.07	43.55	163
*********	**********	******	32.36	47.83	19.80	2005

Table VI

07/14/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED DISTRIBUTION OF 8TH GRADE CAT PERCENTILE SCORES

SE STATUS	ETHNIC GROUP	GENDER	01-30	31-70	71-99	STUDENTS
LOWER SES			41.53	44.83	13.62	1240
UPPER SES			19.26	43.40	37.33	758
	MINORITY		38.84	44.67	16.47	1560
	NON-MINORITY		12.55	42.92	44.52	438
		MALE	41.12	39.35	19.51	958
		FEMALE	25.67	48.84	25.48	1040
LOWER SES	MINORITY		42.73	44.53	12.72	1163
UPPER SES	MINORITY		27.45	45.08	27.45	397
LOWER SES	NON-MINORITY		23.37	49.35	27.27	77
UPPER SES	NON-MINORITY		10.24	41.55	48.19	361
LOWER SES		MALE	52.60	37.50	9.89	576
LOWER SES		FEMALE	31.92	51.20	16.86	664
UPPER SES		MALE	23.82	42.14	34.03	382
UPPER SES		FEMALE	14.62	44.68	40.69	376
	MINORITY	MALE	48.40	38.53	13.06	750
	MINORITY	FEMALE	30.00	50.37	19.62	810
	NON-MINORITY	MALE	14.90	42.30	42.78	208
	NON-MINORITY	FEMALE	10.43	43.47	46.08	230
LOWER SES	MINORITY	MALE	54.32	36.64	9.02	543
UPPER SES	MINORITY	MALE	32.85	43.47	23.67	207
LOWER SES	MINORITY	FEMALE	32.58	51.45	15.96	620
LOWER SES	NON-MINORITY	MALE	24.24	51.51	24.24	33
LOWER SES	NON-MINORITY	FEMALE	22.72	47.72	29.54	44
UPPER SES	MINORITY	FEMALE	21.57	46.84	31.57	190
UPPER SES	NON-MINORITY	MALE	13.14	40.57	46.28	175
UPPER SES	NON-MINORITY	FEMALE	7.52	42.47	50.00	186
*********	**********	******	33.08	44.29	22.62	1998

Table VII

08/05/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF ELEMENTARY READING GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERY	PASSING	FAILING	AV GRADE	N GRADES
UPPER SES			98.30	99.45	0.54	91.88	4615
LOWER SES			93.06	96.48	3.51	88.76	11228
	NON-MINORITY		97.44	98.79	1.20	91.49	3479
	MINORITY		93.78	96.94	3.05	89.15	12364
		FEMALE	96.38	98.25	1.74	90.46	7802
		MALE	92.84	96.46	3.53	88.90	8041
UPPER SES	NON-MINORITY		98.78	99.52	0.47	92.13	2545
UPPER SES	MINORITY		97.72	99.37	0.62	91.57	2070
LOWER SES	NON-MINORITY		93.79	96.78	3.21	89.73	934
LOWER SES	MINORITY		92.99	96.45	3.54	88.67	10294
UPPER SES		FEMALE	99.33	99.77	0.22	92.55	2244
UPPER SES		MALE	97.34	99.15	0.84	91.24	2371
LOWER SES		FEMALE	95.19	97.64	2.35	89.61	5558
LOWER SES		MALE	90.97	95.34	4.65	87.92	5670
	NON-MINORITY	FEMALE	98.77	99.32	0.67	92.11	1631
	NON-MINORITY	MALE	96.26	98.32	1.67	90.93	1848
	MINORITY	FEMALE	95.75	97.97	2.02	90.02	6171
	MINORITY	MALE	91.82	95.91	4.08	88.29	6193
UPPER SES	NON-MINORITY	FEMALE	99.50	99.75	0.24	92.66	1205
UPPER SES	MINORITY	FEMALE	99.13	99.80	0.19	92.43	1039
UPPER SES	NON-MINORITY	MALE	98.13	99.32	0.67	91.66	1340
LOWER SES	NON-MINORITY	FEMALE	96.71	98.12	1.87	90.58	426
UPPER SES	MINORITY	MALE	96.31	98.93	1.06	90.70	1031
LOWER SES	MINORITY	FEMALE	95.07	97.60	2.39	89.53	5132
LOWER SES	NON-MINORITY	MALE	91.33	95.66	4.33	89.02	508
LOWER SES	MINORITY	MALE	90.93	95.31	4.68	87.81	5162
*********	**********	******	94.59	97.34	2.65	89.66	15843

Table VIII

08/05/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF ELEMENTARY MATHEMATIC GRADES

SES GROUP	ETHNIC GROUP	GENDER	MASTERY	PASSING	FAILING	AV GRADE	N GRADES
UPPER SES			98.67	99.45	0.54	91.88	4601
LOWER SES			95.01	97.40	2.59	88.76	11241
	NON-MINORITY		97.81	99.16	0.83	91.49	3474
	MINORITY		95.59	97.67	2.32	89.15	12368
		FEMALE	97.04	98.45	1.54	90.46	7791
		MALE	95.14	97.55	2.44	88.90	8051
UPPER SES	MINORITY		98.69	99.51	0.48	91.57	2063
UPPER SES	NON-MINORITY		98.66	99.40	0.59	92.13	2538
LOWER SES	NON-MINORITY		95.51	98.50	1.49	89.73	936
LOWER SES	MINORITY		94.97	97.30	2.69	88.67	10305
UPPER SES		FEMALE	99.37	99.68	0.31	92.55	2236
UPPER SES		MALE	98.01	99.23	0.76	91.24	2365
LOWER SES		FEMALE	96.11	97.96	2.03	89.61	5555
LOWER SES		MALE	93.95	96.85	3.14	87.92	5686
	NON-MINORITY	FEMALE	98.58	99.32	0.67	92.11	1630
	NON-MINORITY	MALE	97.12	99.02	0.97	90.93	1844
	MINORITY	FEMALE	96.64	98.23	1.76	90.02	6161
	MINORITY	MALE	94.55	97.11	2.88	88.29	6207
UPPER SES	NON-MINORITY	FEMALE	99.58	99.75	0.24	92.66	1203
UPPER SES	MINORITY	FEMALE	99.12	99.61	0.38	92.43	1033
UPPER SES	MINORITY	MALE	98.25	99.41	0.58	90.70	1030
UPPER SES	NON-MINORITY	MALE	97.82	99.10	0.89	91.66	1335
LOWER SES	MINORITY	FEMALE	96.13	97.95	2.04	89.53	5128
LOWER SES	NON-MINORITY	FEMALE	95.78	98.12	1.87	90.58	427
LOWER SES	NON-MINORITY	MALE	95.28	98.82	1.17	89.02	509
LOWER SES	MINORITY	MALE	93.81	96.65	3.34	87.81	5177
*********	**********	******	96.08	97.99	2.00	89.66	15842

Table IX

07/22/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF JUNIOR HIGH ENGLISH GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERING	PASSING	FAILING	AVERAGE	STUDENTS
UPPER SES			78.19	90.72	9.27	81.26	2587
LOWER SES			65.36	83.26	16.73	76.20	3866
	NON-MINORITY		76.26	88.40	11.59	80.74	1458
	MINORITY		68.82	85.62	14.37	77.50	4995
		FEMALE	78.65	91.35	8.64	80.81	3252
		MALE	62.23	81.06	18.93	75.61	3201
UPPER SES	NON-MINORITY		79.23	89.90	10.09	81.84	1209
UPPER SES	MINORITY		77.28	91.43	8.56	80.75	1378
LOWER SES	MINORITY		65.60	83.41	16.58	76.26	3617
LOWER SES	NON-MINORITY		61.84	81.12	18.87	75.38	249
UPPER SES		FEMALE	84.54	94.56	5.43	83.52	1288
LOWER SES		FEMALE	74.79	89.25	10.74	79.03	1964
UPPER SES		MALE	71.90	86.91	13.08	79.02	1299
LOWER SES		MALE	55.62	77.07	22.92	73.29	1902
	NON-MINORITY	FEMALE	82.36	92.69	7.30	82.78	726
	MINORITY	FEMALE	77.59	90.97	9.02	80.24	2526
	NON-MINORITY	MALE	70.21	84.15	15.84	78.71	732
	MINORITY	MALE	59.86	80.15	19.84	74.70	2469
UPPER SES	NON-MINORITY	FEMALE	85.40	94.69	5.30	83.86	603
UPPER SES	MINORITY	FEMALE	83.79	94.45	5.54	83.22	685
LOWER SES	MINORITY	FEMALE	75.28	89.67	10.32	79.13	1841
UPPER SES	NON-MINORITY	MALE	73.10	85.14	14.85	79.82	606
UPPER SES	MINORITY	MALE	70.85	88.45	11.54	78.32	693
LOWER SES	NON-MINORITY	FEMALE	67.47	82.92	17.07	77.45	123
LOWER SES	NON-MINORITY	MALE	56.34	79.36	20.63	73.37	126
LOWER SES	MINORITY	MALE	55.57	76.91	23.08	73.28	1776
*********	**********	******	70.50	86.25	13.74	78.23	6453

Table X

07/22/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF JUNIOR HIGH MATHEMATICS GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERING	PASSING	FAILING	AVERAGE	STUDENTS
UPPER SES			76.80	89.93	10.06	80.66	2574
LOWER SES			64.82	82.99	17.00	76.24	3846
	NON-MINORITY		79.90	89.81	10.18	81.26	1453
	MINORITY		66.61	84.59	15.40	77.07	4967
		FEMALE	76.45	90.27	9.72	80.30	3240
		MALE	62.67	81.19	18.80	75.69	3180
UPPER SES	NON-MINORITY		82.46	91.93	8.06	82.54	1203
UPPER SES	MINORITY		71.84	88.18	11.81	79.02	1371
LOWER SES	NON-MINORITY		67.60	79.60	20.40	75.13	250
LOWER SES	MINORITY		64.62	83.23	16.76	76.32	3596
UPPER SES		FEMALE	82.04	93.20	6.79	82.36	1281
LOWER SES		FEMALE	72.79	88.36	11.63	78.95	1959
UPPER SES		MALE	71.61	86.69	13.30	78.98	1293
LOWER SES		MALE	56.54	77.42	22.57	73.44	1887
	NON-MINORITY	FEMALE	83.86	91.65	8.34	82.64	719
	NON-MINORITY	MALE	76.02	88.01	11.98	79.91	734
	MINORITY	FEMALE	74.33	89.88	10.11	79.63	2521
	MINORITY	MALE	58.66	79.14	20.85	74.43	2446
UPPER SES	NON-MINORITY	FEMALE	86.43	93.80	6.19	83.85	597
UPPER SES	NON-MINORITY	MALE	78.54	90.09	9.90	81.24	606
UPPER SES	MINORITY	FEMALE	78.21	92.69	7.30	81.07	684
LOWER SES	MINORITY	FEMALE	72.89	88.84	11.15	79.09	1837
LOWER SES	NON-MINORITY	FEMALE	71.31	81.14	18.85	76.72	122
UPPER SES	MINORITY	MALE	65.50	83.69	16.30	76.98	687
LOWER SES	NON-MINORITY	MALE	64.06	78.12	21.87	73.60	128
LOWER SES	MINORITY	MALE	55.99	77.37	22.62	73.43	1759
*********	**********	******	69.62	85.77	14.22	78.02	6420

Table XI

07/22/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF SENIOR HIGH ENGLISH GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERING	PASSING	FAILING	AVERAGE	STUDENTS
UPPER SES			75.12	90.11	9.88	77.95	2854
LOWER SES			61.75	84.86	15.13	73.82	2960
	NON-MINORITY		76.76	90.97	9.02	78.59	1330
	MINORITY		65.81	86.39	13.60	75.03	4484
		FEMALE	75.32	90.56	9.43	78.27	2914
		MALE	61.27	84.31	15.68	73.41	2900
UPPER SES	NON-MINORITY		78.21	91.90	8.09	79.09	1235
UPPER SES	MINORITY		72.76	88.75	11.24	77.08	1619
LOWER SES	MINORITY		61.88	85.06	14.93	73.88	2865
LOWER SES	NON-MINORITY		57.89	78.94	21.05	72.12	95
UPPER SES		FEMALE	81.31	92.44	7.55	80.36	1429
LOWER SES		FEMALE	69.56	88.75	11.24	76.26	1485
UPPER SES		MALE	68.91	87.78	12.21	75.54	1425
LOWER SES		MALE	53.89	80.94	19.05	71.37	1475
	NON-MINORITY	FEMALE	83.59	92.87	7.12	80.73	646
	MINORITY	FEMALE	72.97	89.90	10.09	77.57	2268
	NON-MINORITY	MALE	70.32	89.18	10.81	76.58	684
	MINORITY	MALE	58.48	82.80	17.19	72.44	2216
UPPER SES	NON-MINORITY	FEMALE	84.74	93.53	6.46	81.28	603
UPPER SES	MINORITY	FEMALE	78.81	91.64	8.35	79.68	826
UPPER SES	NON-MINORITY	MALE	71.99	90.34	9.65	77.00	632
LOWER SES	MINORITY	FEMALE	69.62	88.90	11.09	76.36	1442
LOWER SES	NON-MINORITY	FEMALE	67.44	83.72	16.27	72.90	43
UPPER SES	MINORITY	MALE	66.45	85.75	14.24	74.37	793
LOWER SES	MINORITY	MALE	54.04	81.16	18.83	71.36	1423
LOWER SES	NON-MINORITY	MALE	50.00	75.00	25.00	71.48	52
*********	**********	******	68.31	87.44	12.55	75.85	5814

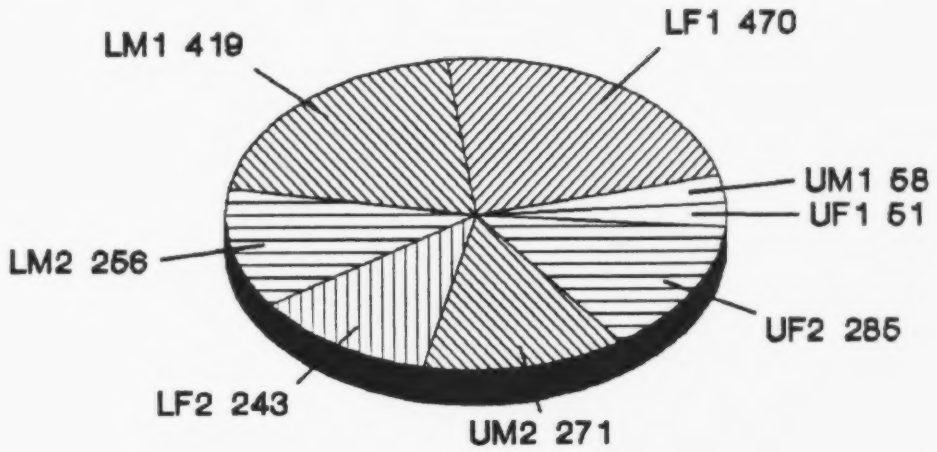
Table XII

07/22/87 JACKSON PUBLIC SCHOOL DISTRICT 1986-87

SCHOOL NAME: DISTRICT
DISAGGREGATED PERCENTAGE DISTRIBUTION OF SENIOR HIGH MATHEMATICS GRADES

SE STATUS	ETHNIC GROUP	GENDER	MASTERING	PASSING	FAILING	AVERAGE	STUDENTS
UPPER SES			68.12	85.29	14.70	77.08	2510
LOWER SES			60.52	81.16	18.83	74.01	2617
	NON-MINORITY		70.87	87.27	12.72	77.71	1171
	MINORITY		62.28	81.97	18.02	74.86	3956
		FEMALE	69.83	86.22	13.77	77.56	2556
		MALE	58.69	80.16	19.83	73.48	2571
UPPER SES	NON-MINORITY		71.34	87.89	12.10	78.07	1082
UPPER SES	MINORITY		65.68	83.33	16.66	76.33	1428
LOWER SES	NON-MINORITY		65.16	79.77	20.22	73.33	89
LOWER SES	MINORITY		60.36	81.21	18.78	74.03	2528
UPPER SES		FEMALE	74.70	88.50	11.49	79.44	1261
LOWER SES		FEMALE	65.09	84.01	15.98	75.73	1295
UPPER SES		MALE	61.48	82.06	17.93	74.70	1249
LOWER SES		MALE	56.05	78.36	21.63	72.32	1322
	NON-MINORITY	FEMALE	75.31	89.69	10.30	79.23	563
	MINORITY	FEMALE	68.28	85.24	14.75	77.09	1993
	NON-MINORITY	MALE	66.77	85.03	14.96	76.30	608
	MINORITY	MALE	56.18	78.65	21.34	72.60	1963
LOWER SES	NON-MINORITY	FEMALE	77.50	90.00	10.00	76.70	40
UPPER SES	NON-MINORITY	FEMALE	75.14	89.67	10.32	79.42	523
UPPER SES	MINORITY	FEMALE	74.39	87.66	12.33	79.45	738
UPPER SES	NON-MINORITY	MALE	67.79	86.22	13.77	76.81	559
LOWER SES	MINORITY	FEMALE	64.70	83.82	16.17	75.70	1255
UPPER SES	MINORITY	MALE	56.37	78.69	21.30	72.99	690
LOWER SES	MINORITY	MALE	56.08	78.63	21.36	72.39	1273
LOWER SES	NON-MINORITY	MALE	55.10	71.42	28.57	70.59	49
*********	**********	******	64.24	83.18	16.81	75.51	5127

Grade Four Demographics - 1985



U,L = Upper,Lower SES M,F = Male, Female
1,2 = Number of Parents in Household

Total N = 2053

NOTES

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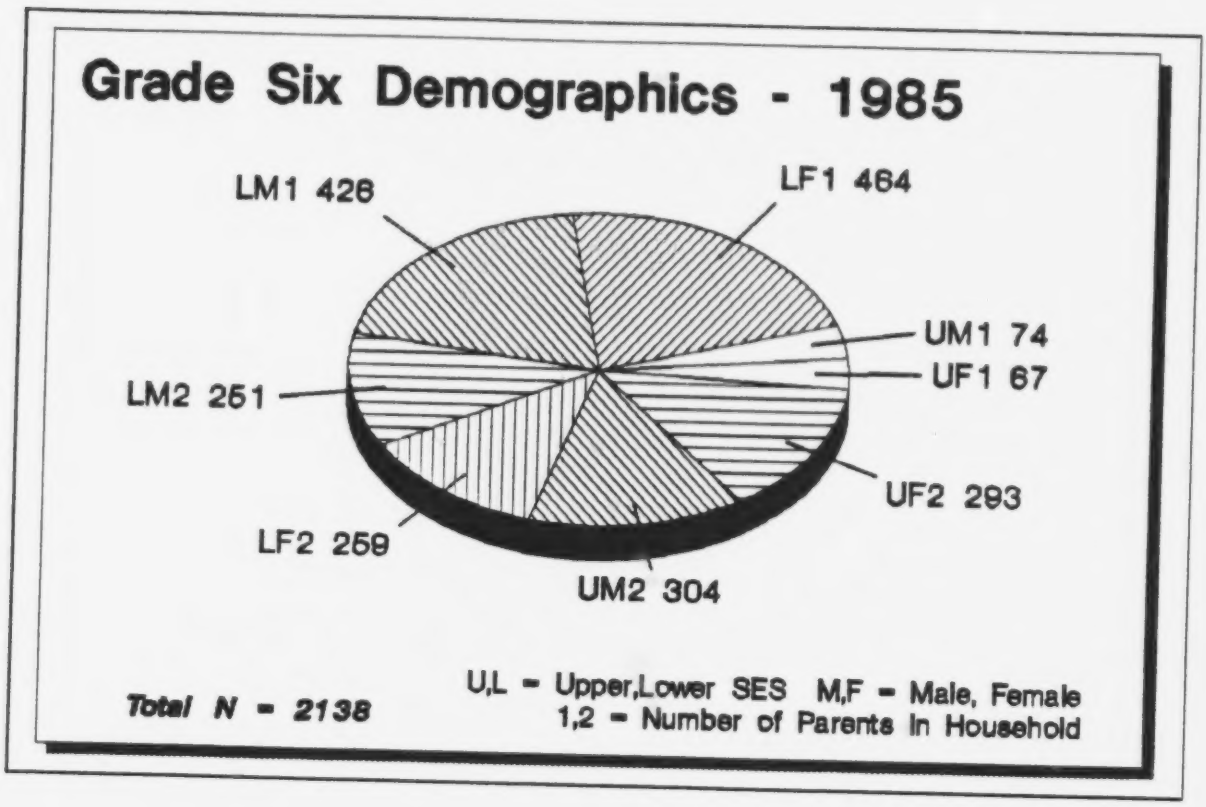
Chart B



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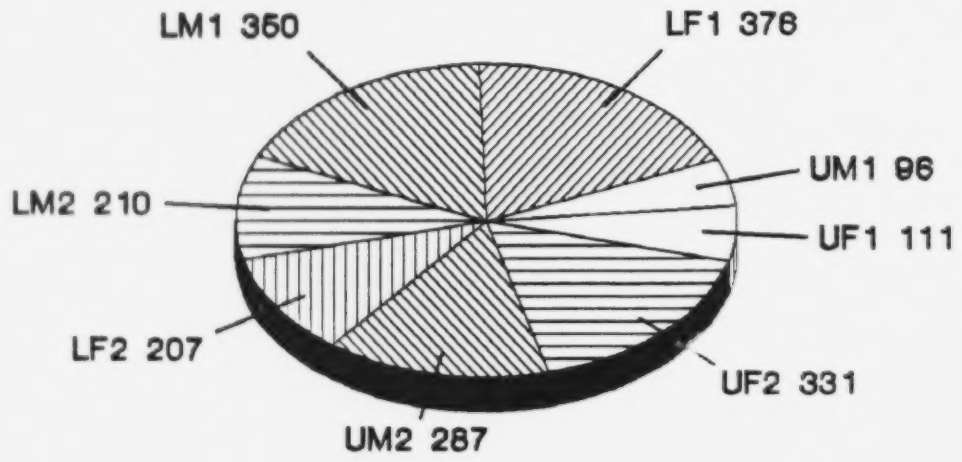
Grade Eight Demographics - 1985



U,L = Upper,Lower SES M,F = Male, Female
1,2 = Number of Parents in Household

Total N = 1968

NOTES

PDEM8C

Chart D

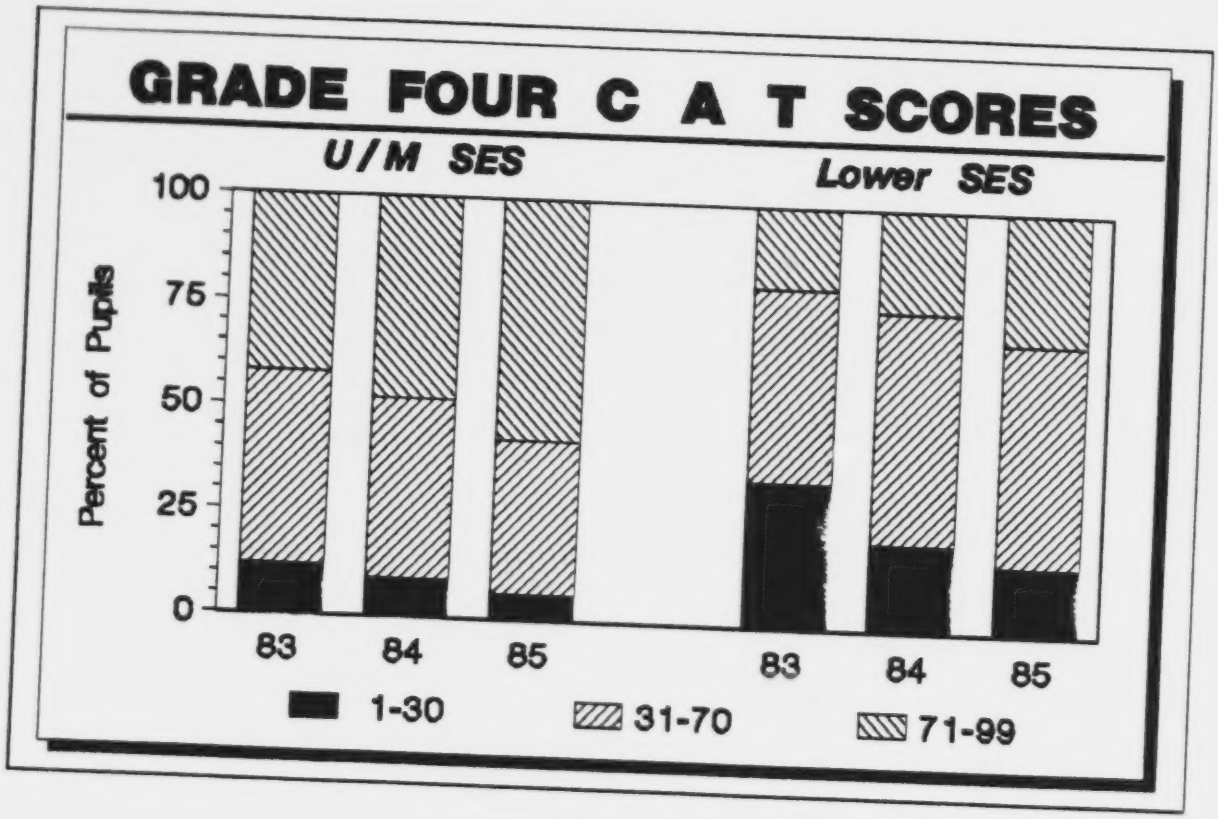


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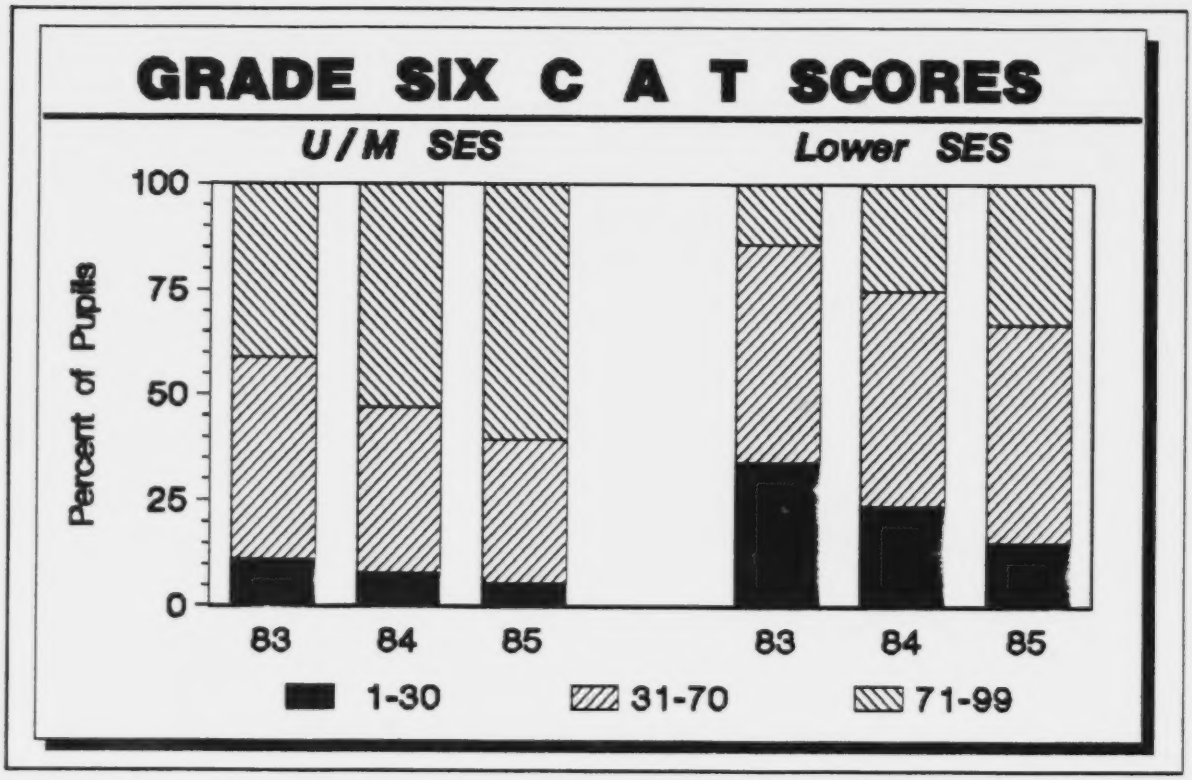
Chart E



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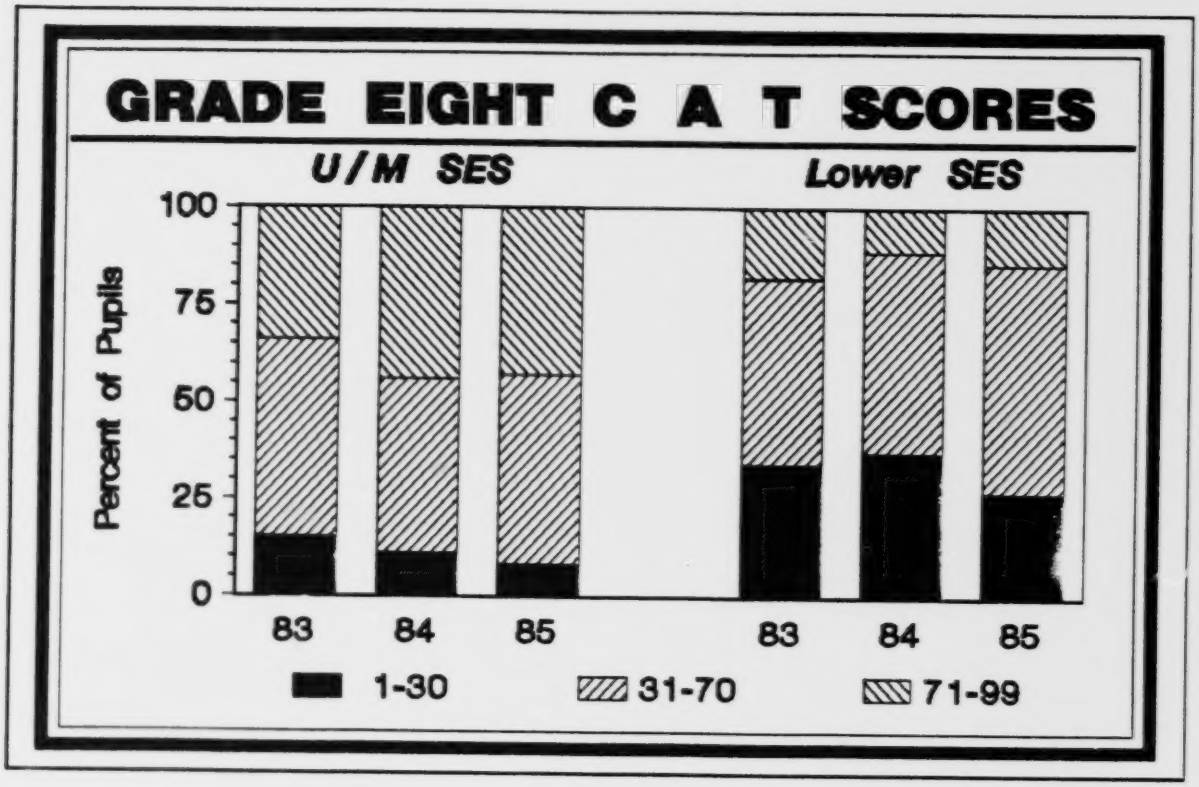
DISAG6G

Chart F



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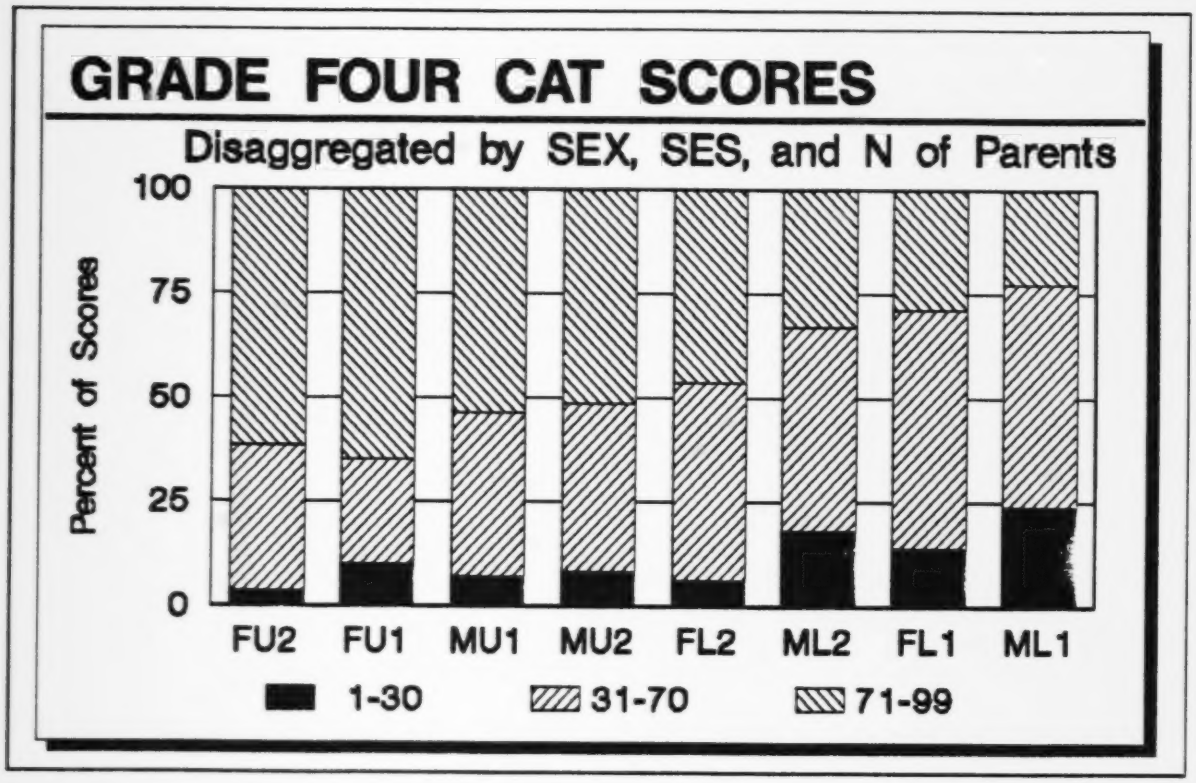
DISAG8G



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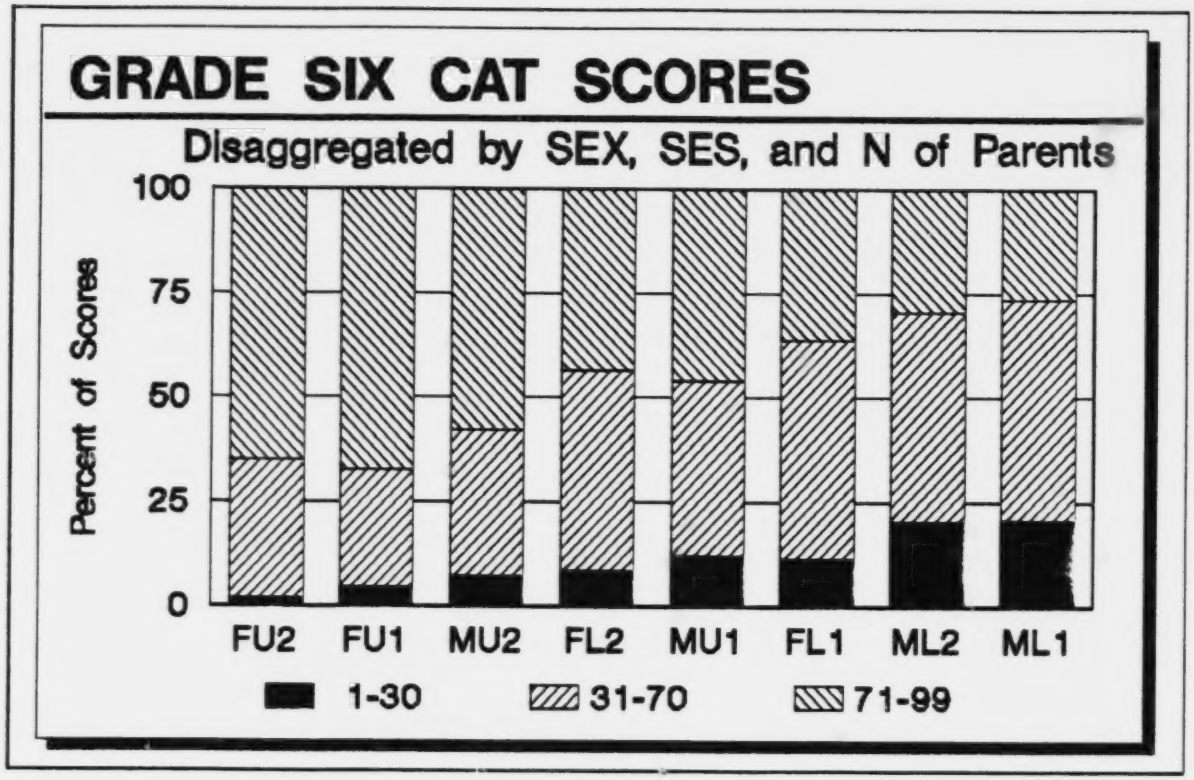
CAT4MC



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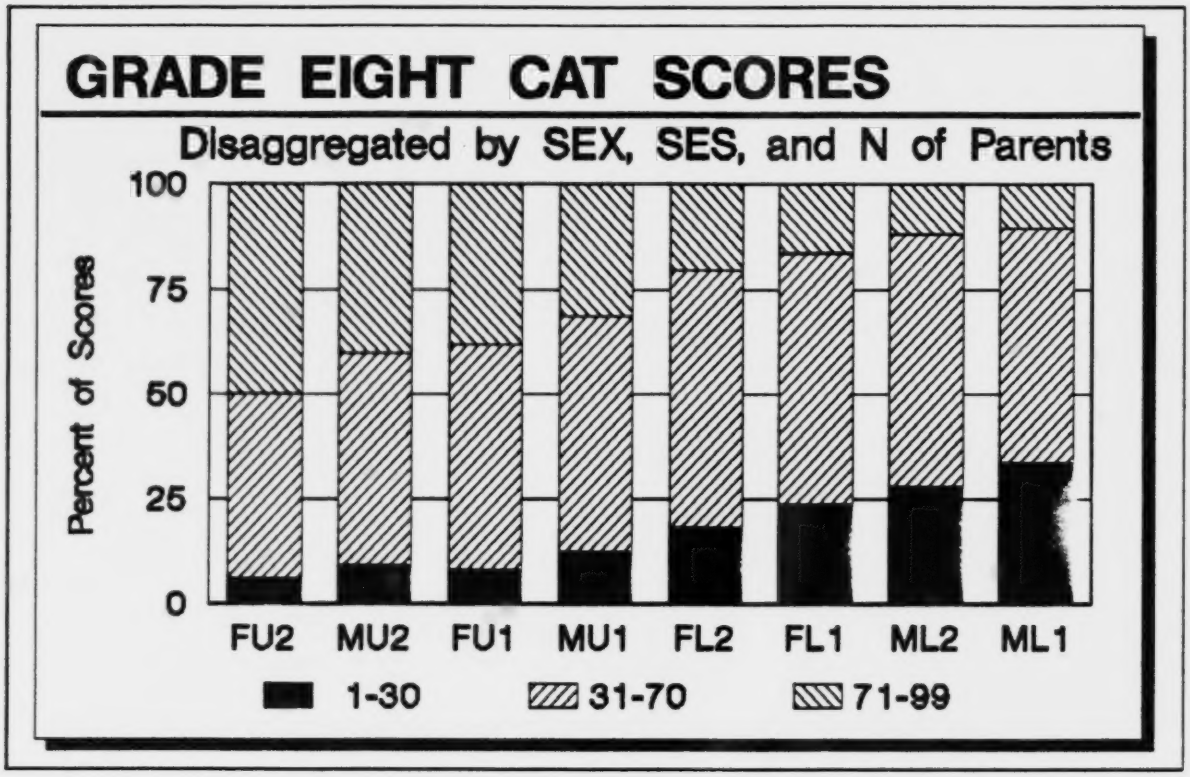
CAT6MC



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